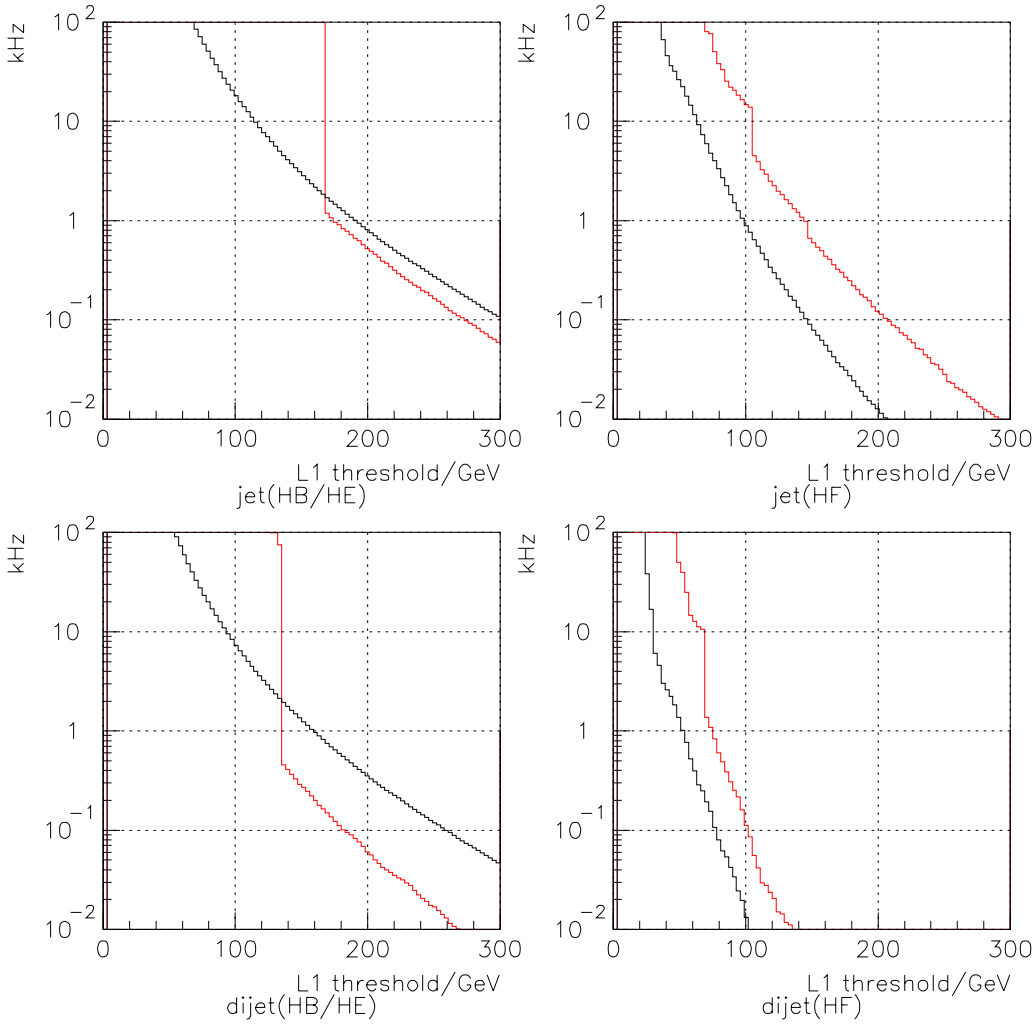
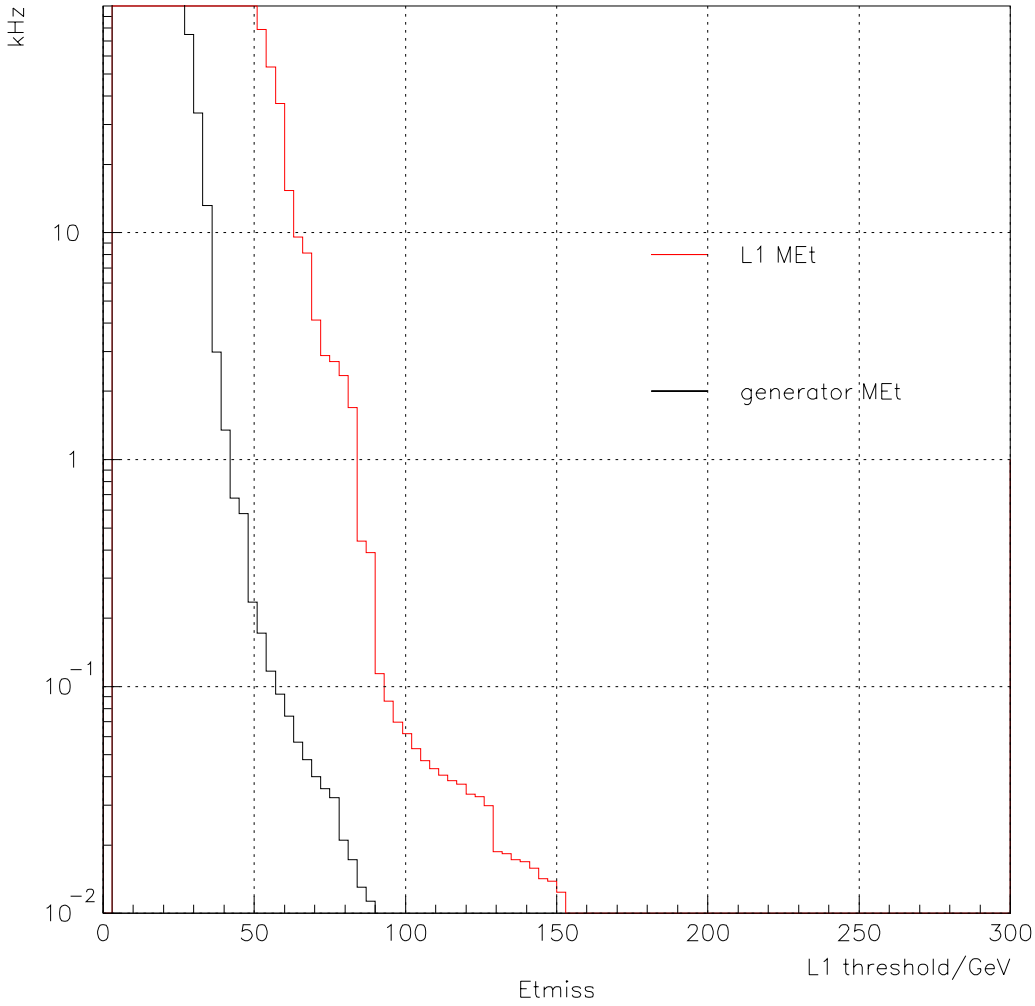
Level-1 Jet Rate

- Lumi = 2×10^{33}
- JetMet ntuples from QCD samples
- Currently missing $30 < \hat{p}_t < 50$ bin



Level-1 E_t^{miss} Rate



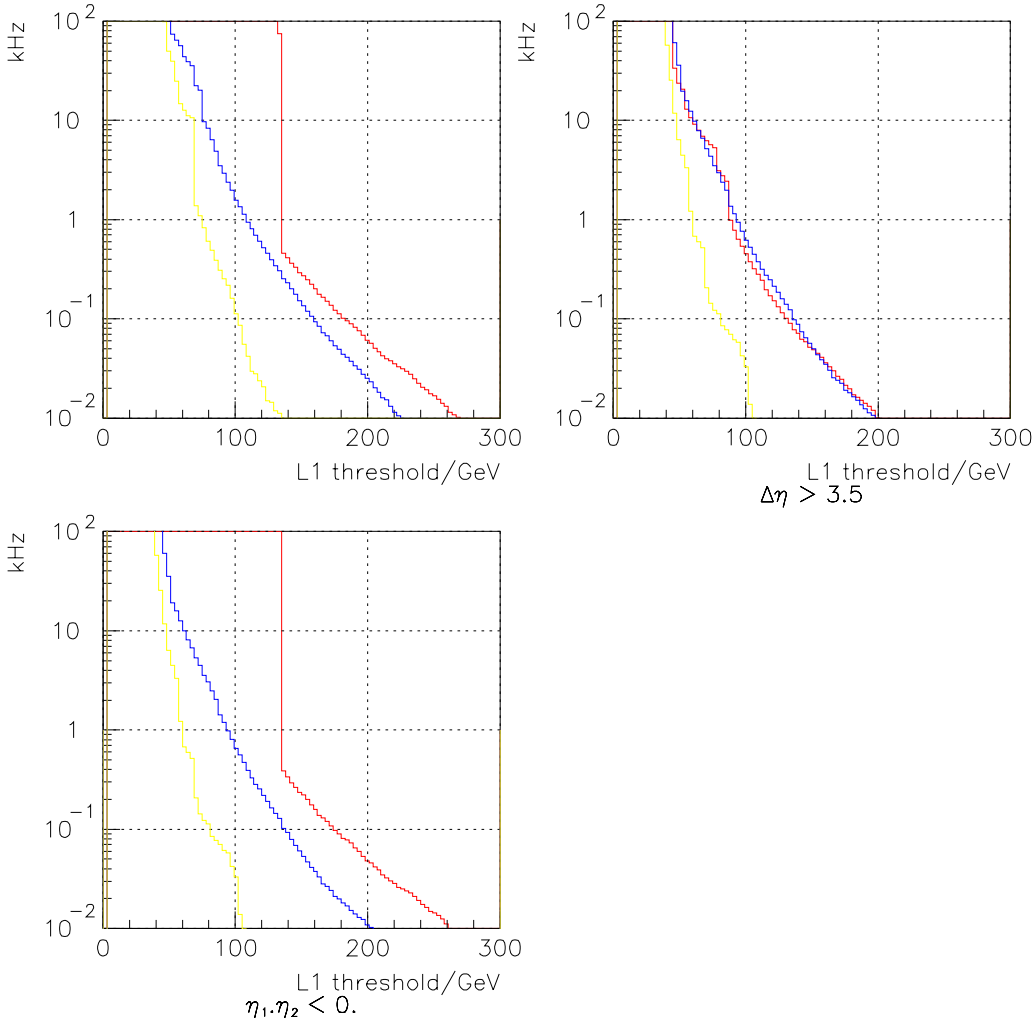
Level-1 Dijet Rate

Consider :

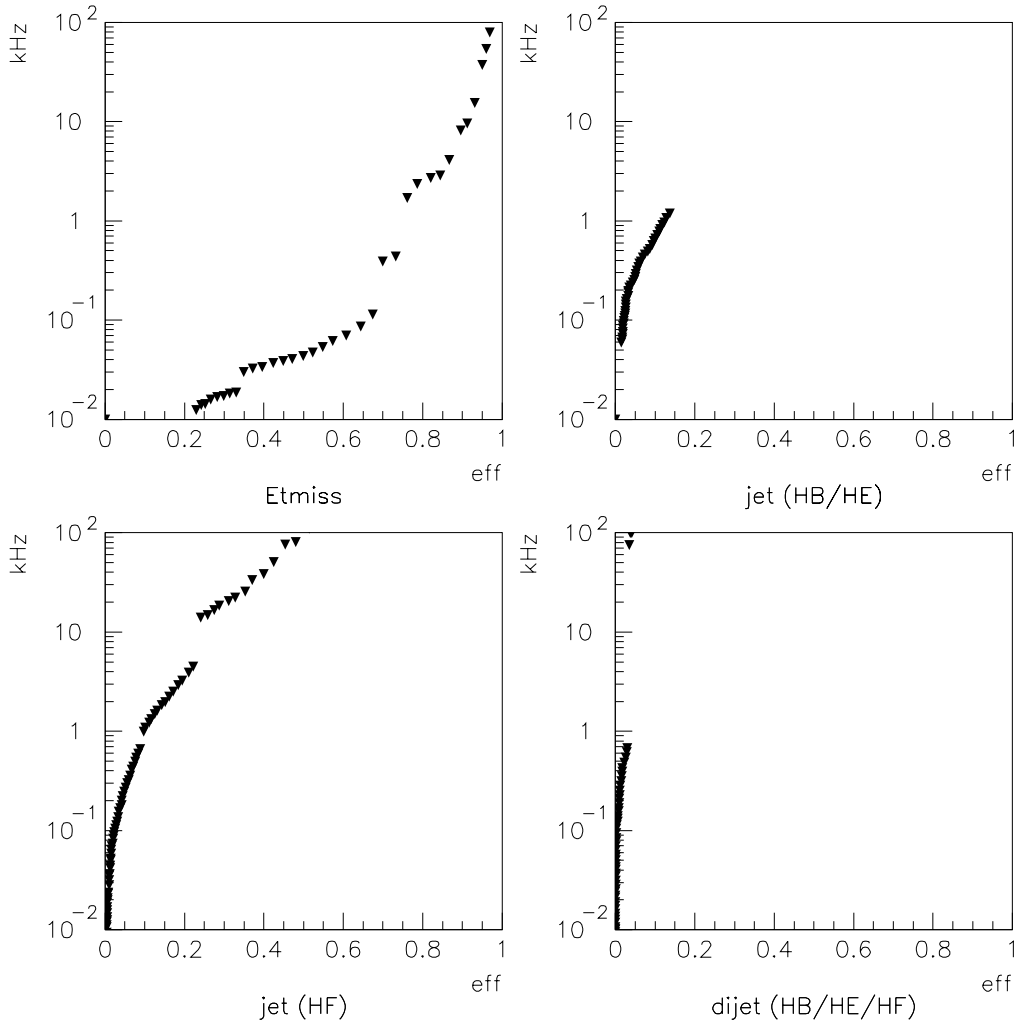
- Both jets central
- Both jets forward
- One jet central, one jet forward

Apply additional conditions, motivated by offline cuts

- $|\eta_1 - \eta_2| > 3.5$
- $\eta_1 \cdot \eta_2 < 0$



Rate vs efficiency

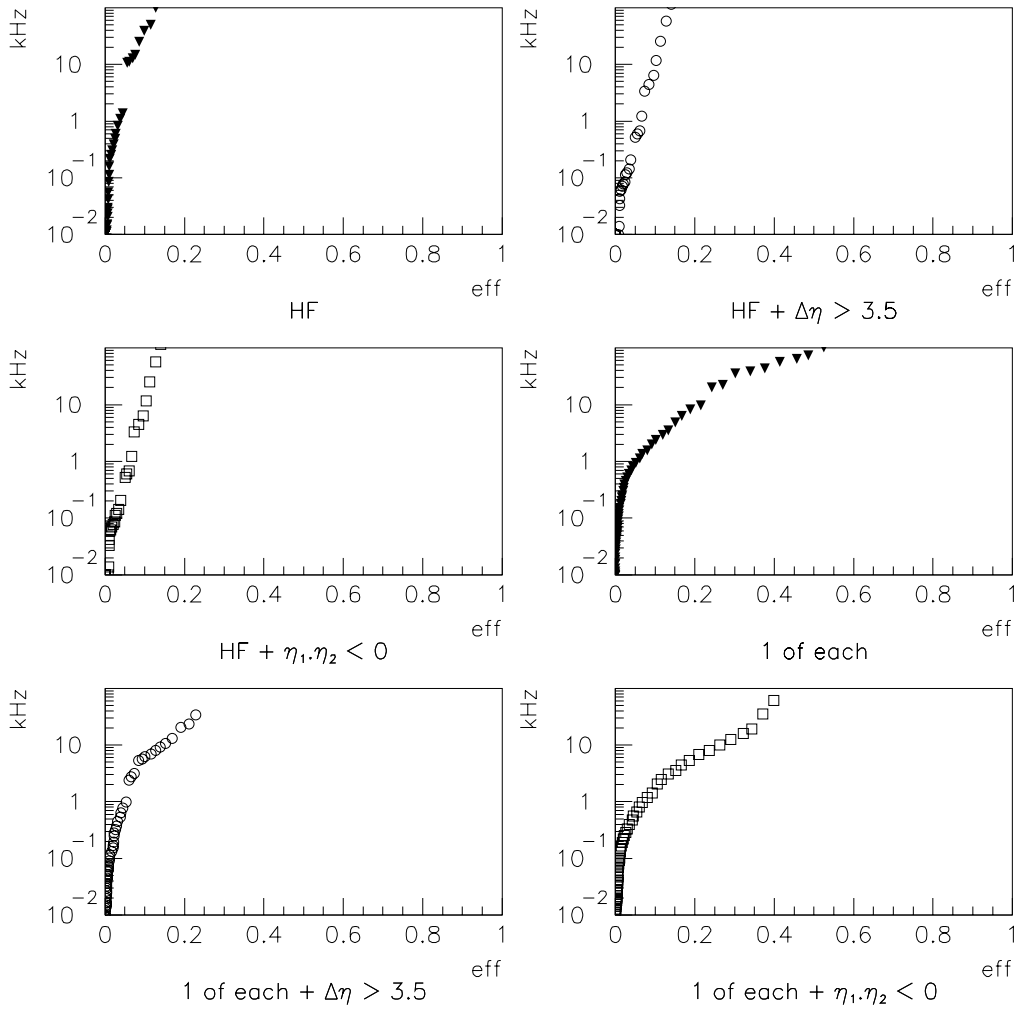


Signal is invisible Higgs in qqH (jm_sm_qq_qqh120_inv)

Efficiency quoted wrt cuts on generator quantities :

- $E_t^{miss} > 100$ GeV
- 2 tag quarks ($E_t > 40$ GeV, $\eta < 5$)
- $\eta_{qq} > 4.4$, $\eta_{q1}.\eta_{q2} < 0$

Rate vs Efficiency (Dijet triggers)



Efficiency increases (was previously zero), but remains insufficient at acceptable rate. Most promising trigger is

- 1 jet in HB/HE + 1 jet in opposite HF.

Plans include :

- Combined jet + E_t^{miss}, dijet + E_t^{miss} triggers
- Include jet corrections for E_t^{miss}
- H_{tot} trigger (and H_{tot} + E_t^{miss})
- Offline selection (with current ntuples)